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10/656,110	09/08/2003	Ho-Jin Ha	1572.1175	7043

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EXAMINER

HSU, JONI

ART UNIT	PAPER NUMBER
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2628

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/656,110	Applicant(s) HA, HO-JIN	
	Examiner Joni Hsu	Art Unit 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The disclosure is objected to because of the following informalities: According to MPEP 608.01(m), The present Office practice is to insist that each claim must be the object of a sentence starting with "I (or we) claim," "The invention claimed is" (or the equivalent). The word "CLAIMS" is not considered to be equivalent to these phrases.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1, 2, 5, 6, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuzaki (US 20030145336A1) in view of Bertram (US005657091A), further in view of Masukura (US006989868B2), further in view of Lyle (US007035290B1).

6. With regard to Claim 1, Matsuzaki discloses a computer system comprising a computer body (20, Figure 2), comprising a hard disk to store user data (*computer 20 includes a hard disk unit*, [0035]), a video connector (201) to transmit data, a video processing part (202) to generate video data (*video/audio processing unit 202 generates decoded video information, and output the information to the video connection unit 201*, [0044]), a memory to store the video data generated through the video processing part (*DVD stores video information*, [0038]), a data transmitting part (213, Figure 3) to output the video data stored in memory and the user data through the video connector (*video connection unit 201 is composed of a TDMS encoding unit 213*, [0037]); and a display apparatus, comprising a display part (303), a body connection part (301) to connect to the video connector of the computer body, an external apparatus connecting part to connect to an external apparatus (305) (*CRT display device 30 is composed of a video connection unit 301, a CRT unit 303, and speakers 305*, [0036]), a data receiving part (311,

Figure 3) to receive the video data and the user data provided from the computer body through the body connection part (*video connection unit 301 is composed of a TMDS decoding unit 311, [0037], TDMS encoding unit 213 is connected to a TDMS decoding unit 311, [0073]*), a control part (302, 304, Figure 2) to display the video data received through the data receiving part to the display part and to output data to the external apparatus connected to the external apparatus connecting part (*CRT display device 30 is composed of a display control unit 302, a speaker control unit 304, [0036], display control unit 302 outputs each generated signal to the CRT unit 303, speaker unit 304 outputs the generated signal to the speakers 305, [0108-0114]*).

However, Matsuzaki does not teach that the memory storing the video data generated through the video processing part is a video memory for temporarily storing the data. However, Bertram discloses a computer body, comprising a video memory to temporarily store the video data generated through the video processing part (116), a data transmitting part to output the video data temporarily stored in the video memory; and a display apparatus (Col. 35, lines 35-41), comprising a data receiving part (Col. 4, lines 1-8).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify the device of Matsuzaki so that the memory storing the video data generated through the video processing part is a video memory for temporarily storing the data as suggested by Bertram because Bertram suggests that the display is constantly changing (Col. 41, lines 1-6), and therefore it would be advantageous to have a video memory to temporarily store the changed video data (Col. 15, line 59-Col. 16, line 9) so that the display can be constantly updated with the changed video data. Video memories for temporarily storing video data are well-known in the art, widely used, and can be found in many publications.

However, Matsuzaki and Bertram do not teach that the video memory also stores the user data stored in the hard disk. However, Masukura discloses a memory (1105, Figure 11) to store the video data generated through the video processing part and the user data stored in the hard disk (1106) (*meta data storage device 1106 acquires user information and is formed from a hard disk*, Col. 12, lines 47-52; *encoded data is stored in the converted video data storage device 1105, meta data analyzer 1107 reads the data obtained from the meta data storage device 1106 and outputs user information to the processing parameter controller 1104, which outputs to encoder 1103*, Col. 13, lines 37-57), and outputting the video data and the user data stored in the memory (*streaming transmission of a bit stream in the second encoded video data format may be done through the converted video storage device 105*, Col. 7, lines 15-17).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify the devices of Matsuzaki and Bertram so that the video memory also stores the user data stored in the hard disk as suggested by Masukura because Masukura suggests that the user data needs to be stored in the video memory in order to be output (Col. 12, lines 47-52; Col. 13, lines 38-57; Col. 7, lines 15-17), and this gives the user the ability to change the processing in any way the user desires (Col. 5, lines 41-51).

However, Matsuzaki, Bertram, and Masukura do not teach that the user data is output to the external apparatus. However, Lyle discloses a data transmitting part (113, Figure 6) and a data receiving part (115) to output and receive the video data and the user data (*transmitter 113, video for transmission to receiver 115, transmitter 113 has user-actuatable control*, Col. 13, line 53-Col. 14, line 16), and displaying the video data received through the data receiving part to the display part and outputting the user data to the external apparatus (*receiver 15 can be a TV set, a*

portable MP3 player, an information kiosk, content router 13 is coupled between content source 11 and receiver 15, content router 13 is a set-top box, Col. 14, line 43-Col. 15, line 6; set-top box have user-actutable control, Col. 13, line 66-Col. 14, line 16).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify the devices of Matsuzaki, Bertram, and Masukura so that the user data is output to the external apparatus as suggested by Lyle because Lyle suggests that external apparatuses such as portable MP3 players and information kiosks need to receive the user data in order for the user to be able to use the user data to control the programs (Col. 14, lines 1-16, 48-52).

7. With regard to Claim 2, Matsuzaki discloses that the data transmitting part (213, Figure 3) and the data receiving part (311) respectively comprises a TMDS (Transition Minimized Differential Signals) transmitter and a TMDS receiver to compress/extract data according to a TMDS-based digital data transmission standard (*TMDS encoding unit 213*, [0058], *TMDS decoding unit 311*, [0087], *encoded video information is video information that has been compressed*, [0038], *extracting the digital video information from the decrypted frame information*, [0018]).

8. With regard to Claim 5, Matsuzaki does not teach that the display apparatus has a buffer temporarily storing the user data received through the data receiving part. However, Lyle discloses that the display apparatus has a buffer temporarily storing the user data received

through the data receiving part (*set-top box having capacity to store the downloaded data*, Col. 15, lines 1-6; Col. 13, line 66-Col. 14, line 16).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify the device of Matsuzaki so that the display apparatus has a buffer temporarily storing the user data received through the data receiving part as suggested by Lyle because Lyle suggests that the user downloaded data needs to be stored in order for external apparatuses such as portable MP3 players and information kiosks to receive the user data in order for the user to be able to use the user data to control the programs (Col. 14, lines 1-16, 48-52; Col. 15, lines 1-6).

9. With regard to Claim 6, Matsuzaki does not teach that the external apparatus connecting part outputs a digital signal from the data transmitting part to the external apparatus via the buffer. However, Lyle discloses that the external apparatus connecting part outputs a digital signal from the data transmitting part to the external apparatus via the buffer (Col. 15, lines 1-6; Col. 13, line 66-Col. 14, line 16). This would be obvious for the same reasons given in the rejection for Claim 5.

10. With regard to Claim 13, Matsuzaki does not teach storing the video data and the user data of the hard disk in a predetermined memory. However, Masukura discloses storing the video data and the user data of the hard disk (1106, Figure 11) in a predetermined memory (1105) (Col. 12, lines 47-52; Col. 13, lines 38-57), wherein the data that is transmitted is the

video data and the user data (Col. 7, lines 15-17). This would be obvious for the same reasons given in the rejection for Claim 1.

11. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuzaki (US 20030145336A1), Bertram (US005657091A), Masukura (US006989868B2), and Lyle (US007035290B1) in view of Fandrianto (US005982459A).

Matsuzaki, Bertram, Masukura, Lyle are relied upon for the teachings as discussed above relative to Claim 2. Matsuzaki discloses that the TMDS transmitter (213, Figure 3) comprises RGB data output pins, and compresses the video data provided from the memory in a predetermined ratio to output a compressed video data through the respective RGB data output pins (*transmission device encrypts video RGB data*, [0012], [0038], *reads the encoded video/audio information from the DVD*, [0043], [0044], [0037]). Bertram discloses that the video data is provided from a video memory (Col. 35, lines 35-41), as discussed in the rejection for Claim 1.

However, Matsuzaki, Bertram, Masukura, and Lyle do not teach that the user data is also compressed and output. However, Fandrianto discloses compressing the user data and the video data (*compressed digital signals which represent video, user defined data*, Col. 3, lines 50-52) and outputting the compressed user and video data through the respective RGB data output pins (*pins from video output interface 212, video output interface 212 has a mode for outputting pixel data in RGB format*, Col. 23, lines 35-60).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify the devices of Matsuzaki, Bertram, Masukura, and Lyle so that the user data

is also compressed and output as suggested by Fandrianto because Fandrianto suggests the advantage of compressing all of the data (Col. 3, lines 50-52), which decreases the total size of the data that needs to be transferred, therefore increasing the transfer speed.

12. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuzaki (US 20030145336A1), Bertram (US005657091A), Masukura (US006989868B2), and Lyle (US007035290B1) in view of Johnson (US006593972B1).

Matsuzaki, Bertram, Masukura, and Lyle are relied upon for the teachings as discussed above relative to Claim 2.

However, Matsuzaki, Bertram, Masukura, and Lyle do not teach that the control part comprises a signal separating part to separate digital data extracted in the data receiver into the video data and the user data. However, Johnson discloses that the control part comprises a signal separating part to separate digital data extracted in the data receiver into the video data and the user data (*digital data stream being modulated on the video output signal to provide control data for user interaction, separating the digital data stream from the video output signal*, Col. 7, lines 18-27).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify the devices of Matsuzaki, Bertram, Masukura, and Lyle so that the control part comprises a signal separating part to separate digital data extracted in the data receiver into the video data and the user data as suggested by Johnson because Johnson suggests the advantage of being able to send video data to a video player device, and user data to a user

control box, so that the correct data gets sent to the correct devices (Col. 7, lines 18-34; Col. 3, lines 51-58).

13. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuzaki (US 20030145336A1), Bertram (US005657091A), Masukura (US006989868B2), and Lyle (US007035290B1) in view of Charton (US005621792A).

14. With regard to Claim 7, Matsuzaki, Bertram, Masukura, and Lyle are relied upon for the teachings as discussed above relative to Claim 1.

However, Matsuzaki, Bertram, Masukura, and Lyle do not teach that the computer body further comprises a parallel-serial converting part to convert the user data to serial data, wherein the user data is parallel data. However, Charton discloses that the computer body further comprises a parallel-serial converting part to convert the user data to serial data, wherein the user data is parallel data (*parallel-serial converter means for converting the outgoing parallel-bit words into serialized-bit words transmitted to the user*, Col. 4, lines 34-43).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify the devices of Matsuzaki, Bertram, Masukura, and Lyle so that the computer body further comprises a parallel-serial converting part to convert the user data to serial data, wherein the user data is parallel data as suggested by Charton because Charton suggests that transmitting the user data in a serialized format enables an optimal picture access mode (Col. 4, lines 34-43; Col. 2, lines 5-13; Col. 18, lines 52-56).

15. With regard to Claim 8, Matsuzaki does not teach outputting the user data stored in the hard disk to the display apparatus through a predetermined pin of the video connector. However, Masukura discloses outputting the user data stored in the hard disk (1106, Figure 11) to the display apparatus (107, Figure 1) through a predetermined pin of the video connector (Col. 12, lines 47-52; Col. 13, lines 38-57; Col. 7, lines 15-17; Col. 4, lines 38-43). This would be obvious for the same reasons given in the rejection for Claim 1.

However, Matsuzaki and Masukura do not teach that the computer body further comprises a parallel-serial converting part to convert the user data to serial data, wherein the parallel-serial converting part outputs a converted serial data. However, Charton discloses that the computer body further comprises a parallel-serial converting part to convert the user data to serial data, wherein the parallel-serial converting part outputs a converted serial data (Col. 4, lines 34-43). This would be obvious for the same reasons given in the rejection for Claim 7.

16. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuzaki (US 20030145336A1) in view of Lyle (US007035290B1).

17. With regard to Claim 9, Matsuzaki discloses a data transmitting method of a computer system including a computer body (20, Figure 2) having a hard disk to store user data [0035], a video processing part (202) to generate video data, and a video connector (201) through which the generated video data is outputted [0044]; and a display apparatus having a body connection part (301) to be connected to the video connector, comprising providing an external apparatus connect part in the display apparatus [0036]; transmitting data to the display apparatus through

the video connector [0037, 0073]; and displaying the video data of a transmitted data as a picture and outputting the data of the transmitted data to an external apparatus (305) connected to the external apparatus connecting part [0036, 0108-0114].

However, Matsuzaki does not teach outputting the user data of the transmitted data to the external apparatus connected to the external apparatus connecting part. However, Lyle discloses outputting the user data of the transmitted data to the external apparatus connected to the external apparatus connecting part (Col. 14, line 43-Col. 15, line 6; Col. 13, line 53-Col. 14, line 16).

This would be obvious for the same reasons given in the rejection for Claim 1.

18. With regard to Claim 10, Claim 10 is similar in scope to Claim 2, and therefore is rejected under the same rationale.

19. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuzaki (US 20030145336A1) and Lyle (US007035290B1) in view of Johnson (US006593972B1).

Claim 11 is similar in scope to Claim 4, and therefore is rejected under the same rationale.

20. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuzaki (US 20030145336A1) and Lyle (US007035290B1) in view of Charton (US005621792A), further in view of Kato (US006939177B2).

Matsuzaki and Lyle are relied upon for teachings as discussed above relative to Claim 9.

However, Matsuzaki and Lyle do not teach converting the user data to serial data.

However, Charton discloses converting the user data to serial data (Col. 4, lines 34-43). This would be obvious for the same reasons given in the rejection for Claim 7.

However, Matsuzaki, Lyle, and Charton do not teach setting up a predetermined pin of the video connector as a data transmission pin; wherein the transmitting of the data comprises outputting the serial data to the display apparatus through the data transmission pin. However, Kato discloses setting up a predetermined pin of the video connector as a data transmission pin; and the user data is serial data, wherein the transmitting of the data comprises outputting the serial data to the display apparatus through the data transmission pin (Col. 1, lines 27-38).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify the devices of Matsuzaki, Lyle, and Charton to include setting up a predetermined pin of the video connector as a data transmission pin; wherein the transmitting of the data comprises outputting the serial data to the display apparatus through the data transmission pin as suggested by Kato because Kato suggests that the data needs to be connected to the right type of pin in order to be transmitted properly (Col. 1, lines 27-38).

21. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuzaki (US 20030145336A1) and Lyle (US007035290B1) in view of Charton (US005621792A).

Matsuzaki and Lyle are relied upon for the teachings as discussed above relative to Claim 9.

However, Matsuzaki and Lyle do not teach converting the user data to serial data, wherein the data that is transmitted is the serial data. However, Charton discloses converting the

user data to serial data, wherein the data that is transmitted is the video data and the serial data (Col. 4, lines 34-43; Col. 5, lines 41-45). This would be obvious for the same reasons given in the rejection for Claim 7.

22. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuzaki (US 20030145336A1) in view of Masukura (US006989868B2).

Matsuzaki discloses a computer system, comprising a processing unit (20, Figure 2), comprising a video processor (202) to generate video data [0035, 0044], a storage unit to store user data [0035], and a data transmitter (213, Figure 3) to transmit the video data and the user data [0076]; and a display unit (30, Figure 2), which is connected to the processing unit via a video connector (201) to display the video data [0045-0048].

However, Matsuzaki does not teach an external storage unit to store the user data; and that the display unit is connected to the external storage unit via an external storage unit connector, to transmit the user data to the external storage unit. However, Masukura discloses an external storage unit (105, Figure 1) to store the user data; and that the display unit is connected to the external storage unit via an external storage unit connector, to transmit the user data to the external storage unit (Col. 12, lines 47-52; Col. 13, lines 38-57; Col. 7, lines 15-17). This would be obvious for the same reasons given in the rejection for Claim 1.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joni Hsu whose telephone number is 571-272-7785. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka Chauhan can be reached on 571-272-7782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JH



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